treated in such a way that the component, dietary supplement, or contact surface is not contaminated.

- (b) You must calibrate instruments and controls you use in manufacturing or testing a component or dietary supplement. You must calibrate:
 - (1) Before first use; and
- (2) At the frequency specified in writing by the manufacturer of the instrument and control; or
- (3) At routine intervals or as otherwise necessary to ensure the accuracy and precision of the instrument and control.
- (c) You must repair or replace instruments or controls that cannot be adjusted to agree with the reference standard.
- (d) You must maintain, clean, and sanitize, as necessary, all equipment, utensils, and any other contact surfaces used to manufacture, package, label, or hold components or dietary supplements.
- (1) Equipment and utensils must be taken apart as necessary for thorough maintenance, cleaning, and sanitizing.
- (2) You must ensure that all contact surfaces, used for manufacturing or holding low-moisture components or dietary supplements, are in a dry and sanitary condition when in use. When the surfaces are wet-cleaned, they must be sanitized, when necessary, and thoroughly dried before subsequent use.
- (3) If you use wet processing during manufacturing, you must clean and sanitize all contact surfaces, as necessary, to protect against the introduction of microorganisms into components or dietary supplements. When cleaning and sanitizing is necessary. you must clean and sanitize all contact surfaces before use and after any interruption during which the contact surface may have become contaminated. If you use contact surfaces in a continuous production operation or in consecutive operations involving different batches of the same dietary supplement, you must adequately clean and sanitize the contact surfaces, as nec-
- (4) You must clean surfaces that do not come into direct contact with components or dietary supplements as frequently as necessary to protect against

contaminating components or dietary supplements.

- (5) Single-service articles (such as utensils intended for one-time use, paper cups, and paper towels) must be:
- (i) Stored in appropriate containers; and
- (ii) Handled, dispensed, used, and disposed of in a manner that protects against contamination of components, dietary supplements, or any contact surface.
- (6) Cleaning compounds and sanitizing agents must be adequate for their intended use and safe under their conditions of use:
- (7) You must store cleaned and sanitized portable equipment and utensils that have contact surfaces in a location and manner that protects them from contamination.

[72 FR 34942, June 25, 2007, as amended at 73 FR 13124, Mar. 12, 2008]

§ 111.30 What requirements apply to automated, mechanical, or electronic equipment?

For any automated, mechanical, or electronic equipment that you use to manufacture, package, label, or hold a dietary supplement, you must:

- (a) Design or select equipment to ensure that dietary supplement specifications are consistently met;
- (b) Determine the suitability of the equipment by ensuring that your equipment is capable of operating satisfactorily within the operating limits required by the process;
- (c) Routinely calibrate, inspect, or check the equipment to ensure proper performance. Your quality control personnel must periodically review these calibrations, inspections, or checks;
- (d) Establish and use appropriate controls for automated, mechanical, and electronic equipment (including software for a computer controlled process) to ensure that any changes to the manufacturing, packaging, labeling, holding, or other operations are approved by quality control personnel and instituted only by authorized personnel; and
- (e) Establish and use appropriate controls to ensure that the equipment functions in accordance with its intended use. These controls must be approved by quality control personnel.